

PATENTS

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Terry L. Thomas                      **Examiner:** To Be Assigned  
**Serial No:** To Be Assigned                      **Art Unit:** To Be Assigned  
**Filed:** Herewith                      **Docket:** 8383zyxwvut  
**For:** PRODUCTION OF GAMMA  
LINOLENIC ACID BY A DELTA  
6 DESATURASE                      **Dated:** December 21, 2001

Assistant Commissioner for Patents  
United States Patent and Trademark Office  
Washington, D.C. 20231

**PRELIMINARY AMENDMENT**

Sir:

In connection with the filing of the above-identified application, please enter the following preliminary amendment.

**IN THE SPECIFICATION:**

**Please replace the paragraph beginning at page 1, line 2 with the following paragraph:**


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**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

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Dated: December 21, 2001

  
Anna Baerga

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## **--CROSS REFERENCE TO RELATED APPLICATIONS**

This is a continuation application of U.S. Serial No. 08/934,254 filed on September 19, 1997, which is a continuation-in-part of U.S. Serial No. 08/789,936 filed on January 28, 1997, now U.S. Patent No. 5,789,220, which is a continuation-in-part of U.S. Serial No. 08/307,382 filed on September 14, 1994, now U.S. Patent No. 5,552,306, which is a continuation of U.S. Serial No. 07/959,952 filed on October 13, 1992, abandoned, which is a continuation-in-part of U.S. Serial No. 817,919, filed on January 8, 1992, abandoned, which is a continuation-in-part application of U.S. Serial No. 774,475 filed on October 10, 1991, abandoned.--

## **IN THE CLAIMS:**

**Please cancel claims 1-46 without prejudice.**

**Please add the following claims:**

47. An isolated nucleic acid molecule encoding a delta-6 desaturase.
48. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a plant delta-6 desaturase.
49. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a bacterial delta-6 desaturase.
50. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a fungal delta-6 desaturase.
51. A genetic construct comprising an isolated nucleic acid according to claim 47.
52. A vector comprising the genetic construct according to claim 51.
53. A cell comprising the vector according to claim 52.

54. A transformed plant comprising the nucleic acid according to claim 47 or the genetic construct according to claim 51.

55. A method of producing a plant with increased GLA comprising transforming a plant cell with a nucleic acid according to claim 47 or the genetic construct according to claim 51 and regenerating it.

### REMARKS

Claims 1-46 have been canceled without prejudice. Claims 47-55 have been added.

Claim 47 is directed to an isolated nucleic acid molecule encoding a delata-6 desaturase.

Claims 48-50 are drawn to nucleic acid molecules encoding a delata-6 desaturase from a plant, a bacterium, and a fungus, respectively. Support for added claims 47-50 is found throughout the specification, e.g., at page 7, line 7 through page 8, line 16.

Claims 51-55, all of which ultimately depend from claim 1, are drawn to a genetic construct, a vector, a cell, a transformed plant, and a method of producing a plant with increased GLA, respectively. The subject matter of claims 51-55 is fully supported by the instant disclosure, e.g., at pages 14-23.

Applicant respectfully submits that the foregoing amendments do not introduce new matter. Attached hereto is a marked-up version of the changes made to the specification and claims by the instant amendment. The attached page is captioned "**Version with Markings to Show Changes Made.**"

**THE**

7508

Enc.: Version with Markings to Show Changes Made

Serial No: TO BE ASSIGNED  
Date: December 21, 2001

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

**Please amend the paragraph beginning at page 1, line 2 as follows:**

**CROSS-REFERENCE TO RELATED APPLICATIONS**

This is a continuation application of U.S. Serial No. 08/934,254 filed on September 19, 1997, which is a continuation-in-part of U.S. Serial No. 08/789,936 filed on January 28, 1997, now U.S. Patent No. 5,789,220, which is a continuation-in-part of U.S. Serial No. 08/307,382 filed on September 14, 1994, now U.S. Patent No. 5,552,306, which is a continuation of U.S. Serial No. 07/959,952 filed on October 13, 1992, abandoned, which is a continuation-in-part of U.S. Serial No. 817,919, filed on January 8, 1992, abandoned, which is a continuation-in-part application of U.S. Serial No. 774,475 filed on October 10, 1991, abandoned.

**IN THE CLAIMS:**

**Please cancel claims 1-46 without prejudice.**

**Please add the following claims:**

47. An isolated nucleic acid molecule encoding a delta-6 desaturase.
48. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a plant delta-6 desaturase.
49. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a bacterial delta-6 desaturase.
50. An isolated nucleic acid according to claim 47, wherein said isolated nucleic acid is a fungal delta-6 desaturase.

51. A genetic construct comprising an isolated nucleic acid according to claim 47.
52. A vector comprising the genetic construct according to claim 51.
53. A cell comprising the vector according to claim 52.
54. A transformed plant comprising the nucleic acid according to claim 47 or the genetic construct according to claim 51.
55. A method of producing a plant with increased GLA comprising transforming a plant cell with a nucleic acid according to claim 47 or the genetic construct according to claim 51 and regenerating it.